Pass-Through of Cost-Push Shocks

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Summary

This paper: studies the microfoundations and determinants of incomplete pass-through of cost-push shocks

- Highly topical: how much of cost-push shocks are passed through and what does this imply for economic outcomes and optimal policy?
- **Descriptive evidence** from survey indicates
  - Gradual, sluggish adjustment leads to incomplete pass-through over time
  - Within-sector variation: pass-through varies significantly within and across narrowly defined sectors
  - Role of firm-specific beliefs: pass-through increases with the firm's expected duration of the shock and idiosyncratic uncertainty
  - Pass-through increases with past price-setting frequency
- **Survey experiment**: explores causal link between the nature of shocks and pass-through.
  - Concave increase in pass-through over time
  - In the medium run, significantly higher pass-through with permanent shock scenarios relative to temporary and uncertain scenarios.
- Sheds light on the presence of real and nominal rigidities and the importance of firm-specific expectations about the nature of the shock in shaping pass-through outcomes.

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Contribution

- Despite the importance of price stickiness in New Keynesian models, empirical evidence on the microfoundations and determinants of incomplete pass-through is limited.
- The authors directly elicit price pass-through through a large-scale business survey.
- Survey contains valuable information on firms' business situations and expectations, allowing for a comprehensive study of pass-through determinants.
- New approach to measuring and understanding pass-through dynamics: complement descriptive evidence with causal insights from survey experiments.
- Novel causal evidence on the relevance of firm-specific expectations and competitive environments for pass-through dynamics.

Comment 1: From micro to macro

- Aggregation and propagation are two central problems in macroeconomics (Baqaee and Rubbo, 2022)
- The survey provide detailed data on individual firm behavior.
- Accounting for disaggregated details qualifies answers to important questions (welfare gains from int'l trade, losses from price rigidity, slope of the Philips curve).
- Can disaggregated data be used to tell us what aspect of firm heterogeneity matters?
    - Sector-specific results: pass through higher across all scenarios for firms in manufacturing and construction vs services and trade. Along with firm size, what about size within a sector, or the degree of market power a firm has, i.e., demand elasticity of a product?
    - Surprising result: gradualness and the increasing pass-through in the shock duration are similar across sectors and along the firm size distribution. Evidence indicating a positive correlation between firm size and markups (Autor et al., 2020).

Comment 2: Nature of shocks

Focus is more on features of the shock: uncertainty, duration, size. What type of cost-push shock the authors had in mind when surveying firms and do firms respond differently to them?

- The baseline question is about a supply shock, supplementary questions are about energy/commodities/intermediate input costs.
- The demand side effects of these shocks can be very different, depending on the complementarity of the intermediate input with labour.
- Do firms answer differently when considering energy shocks? Do they perceive it as a shock to demand due to its complementarity with labor or its direct effects on consumption baskets?

Comment 3: Policy implications

- Uncertain firms adjust on both the extensive and intensive margins by more.
  $\rightarrow$ Under high uncertainty, cost-push shocks propagate faster and amplify inflation dynamics. This also implies that inflation dynamics become less persistent and monetary policy less effective. Is this due to lags of the monetary policy transmission mechanism or because of the sacrifice ratio?
- Interaction of expectations (about the size and duration of the shock) with nominal and real rigidities: how does the degree of competition a firm face affect the accuracy of firms' beliefs (i.e., via attentiveness)?
  - The accuracy of firms' expectations about aggregate variables correlates with the number of their competitors (Coibion, Gorodnichenko and Kumar, 2018)
  - Afrouzi (2020): rational inattention + oligopolistic competition has quantitatively significant implications for output and inflation responses to monetary policy shocks. It amplifies monetary non-neutrality by up to 77% and shifts the output response disproportionately towards less competitive firms by distorting relative prices.
  - Firms in less competitive oligopolies acquire less information about the aggregate shocks, the response of their prices to these shocks are smaller and more persistent, both of which amplify monetary non-neutrality.

Conclusion

- Very insightful paper, on a highly topical issue
- In times of heightened inflation, it's particularly important to understand the factors influencing pass-through.
- This paper can shed light on dynamics of inflation persistence and implications for optimal policy

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